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Czech Republic Biotechnology Annual Report 2007

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Report Highlights:

The Czech Republic, as a member of the EU, follows the EU's legislative framework for biotechnology. Act 78/2004, amended by 346/05, replaced the first Act on GMO 153/2000. The Ministry of Environment is the competent authority for handling biotech product notifications, and the Ministry of Agriculture is responsible for notifications of biotech food and feed. The Czech Republic ratified the Cartagena Protocol on Biosafety in October 2001. This year between 5,000 and 6,000 hectares of Bt corn (MON 810) is being grown in the Czech Republic, a four-fold increase since last year. The Czech Republic's coexistence rules require isolation distances and notifications to the Ministry of Agriculture and the Ministry of Environment. When voting on biotech approvals at various levels in the EU, the Czech Republic takes a case-by-case approach and bases its decision on scientific evidence.

Includes PSD Changes: No Includes Trade Matrix: No Unscheduled Report Prague [EZ1]

SECTION I. EXECUTIVE SUMMARY

The U.S. exports soybean meal and soybean oil to the Czech Republic. It is difficult to estimate the exact amount, since most soybean meal is transshipped through Germany where U.S., Brazilian, and other suppliers' soybean meal is mixed. In 2005, the Czech Republic imported over 650,000 MT of soybean meal, which was more than double the amount in 2001. The higher demand for soybean meal is the result of Europe's BSE outbreak in 2001, when meat-bone-meal was replaced by soybean meal in feed mixtures.

Round-up Ready (RR) soybeans were one of the first biotech varieties approved by the Ministry of Environment, when the first Act 153/2001 on Genetically Modified Organisms (GMO) came into effect. Biotech regulations have not impacted U.S. exports of sovbean meal or soybean oils significantly, but they have impacted the export of some food products (e.g. corn chips or products containing soybeans) as retailers requested certification products do not contain biotech ingredients. An importer of U.S. products has to assess which products may contain biotech products and have those products tested in the Czech Republic, which is very costly. If the test result is less than 0.9% for biotech content, the importer receives a certificate that states that the product does not contain "GMOs". If biotech content is higher than 0.9%, the importer will most probably not import this product, since retailers refuse to carry products containing biotech ingredients. However, there are exceptions for products with labels stating "contains GMO" (e.g. soybean oil) and consumers buy these products. These consumers either do not read the label or do not think biotech products (or GMOs) are dangerous. On the other hand, there are products (especially organic), which carry a voluntary 'negative' label "does not contain GMO" as a marketing tool.

Czech biotechnology regulatory system – recent developments

The Czech Republic, as a member of EU, follows the EU's legislative framework for biotechnology. Even before EU accession on May 1, 2004 and during the 'legislation harmonization process, Act 153/2000 on the use of genetically modified organisms and genetic products was in effect since January 1, 2001. According to this Act, the Ministry of Environment evaluates applications and registers biotech products for laboratory use, release into the environment, and on the market. The Ministry keeps a list of all approved biotech products and a list of users.

Act 153/2000 was replaced by Act 78/2004, which came into effect on February 25, 2004 and was later amended by Act 346/2005. The competent authority handling notifications and regulating the use of biotech products in the Czech Republic is the Ministry of Environment (according to EU Directive 2001/18/EC). It cooperates with the Ministry of Health in respect to human health risks and with the Ministry of Agriculture in respect to agricultural risks including crops, feeds, and animal health. The Czech Commission for the Use of GMOs and Genetic Products ("Commission"), the expert advisory body to the Ministry of Environment, has 14 members and consists of administrative authorities, scientists, and researchers. The main task of the Commission is to assess the environmental risk of the notified GMOs. The Czech Republic ratified the Cartagena Protocol on Biosafety in October 2001.

Under EC Regulation 1829/2003 on Genetically Modified Food and Feed, the competent authority for handling notifications and approvals of biotech food and feed is the Ministry of Agriculture, Food Safety and Technology of the Living Environment Department.

The Ministry of Agriculture prepared rules for coexistence of biotech crops with conventional and organic farming in preparation for planting Bt corn in the spring of 2005. The rules in

2005, were part of the Government Regulation on Conditions for Providing Top-up Payments to Direct Payment for 2005. As of this year conditions for GM crop growing are set by the amendment 441/2005 of the Act on Agriculture 252/1997 and by Decree 89/2006. Together they set out the following requirements:

- a) information a farmer must inform his neighbors and the Ministry of Agriculture that he plans to plant a GM crop (currently Bt corn is approved and grown) by March 1, then within 15 days after planting he must inform his neighbors again, within 30 days the Ministry of Agriculture and within 60 days the Ministry of Environment
- b) isolation distances for GM corn and conventional corn the distances are 70 m or 35 rows of non GM crop as a barrier or a combination of a distance and a buffer zone, in which case 1 row equals 2 meters. For Bt corn and organic corn it is 200 m or 100 m and 50 rows of non GM crop as a buffer zone; for potatoes (not grown yet) the distances are between 3-20 m
- c) keeping records a farmer must keep all records on purchase, storage, planting and sale of all GM seed or crop for 5 years
- d) control and evidence a farmer, for his evidence and the purpose of control, must know where exactly his GM fields start and end.

SECTION II. BIOTECHNOLOGY TRADE AND PRODUCTION

Production of biotech crops

In 2005, Czech farmers were allowed for the first time to plant Bt corn (MON 810), which is marketed under the name YieldGard Cornborer and distributed by Pioneer. As a result, over 60 farmers planted Bt MON810 corn on a total area of about 300 ha. In 2006, farmers grew Bt corn on 1,290 hectares and this year the Ministry of Agriculture estimates Bt corn planting on 5,000 to 6,000 hectares (total corn area in the Czech Republic is 275,500 hectares).

Last fall the Ministry of Agriculture conducted another survey among farmers that grew Bt corn last year in order to find out first results. According to this survey, farmers that grew Bt corn reported a 5 to 20% increase in yield; lower occurrence of corn borer; and lower mycotoxin levels. However, the farmers complained about complicated government requirements and higher seed prices.

Czech farmers see new opportunities for GM crops use, not only for food and feed, but also for fast growing bioethanol production. In terms of food use, some dairy plants refuse to buy milk from farmers who feed their cattle with GM crops (soybeans, corn) although there is no legislative requirement and meat and milk of animals with fed with biotech crops have been proved safe. Products containing GMO are available in Czech supermarkets, e.g. vegetable oils (and they are labeled).

Import of biotech crops

The Czech Republic imports soybean meal and soybean oil from RR soybeans. Even though statistics show most imports originate from Germany, the soybean meal comes from other countries (mostly from the U.S. or Brazil depending on the season). Soybeans are mixed in Germany and sold by quality type--not country of origin, so it's hard to know exactly how much product is exported to the Czech Republic from the U.S. In 2005, the Czech Republic imported over 650,000 MT, which was over a 100% increase since 2001.

A small quantity of corn is also imported from the U.S. (in 2004 about 500 MT). The Czech Republic is increasing its growing area of corn, which reduces the need for corn imports. In 1999, the Czech Republic imported 76,000 MT of corn, last year it was only 10,000 MT. Over 90% of total imported corn comes from Slovakia.

For U.S. exporters there is an opportunity to export soybean meal, soybean oil, and corn seeds.

The Czech Republic is not a food aid recipient, and as a member of the EU it is not likely to be a food aid recipient in the near future.

No biotech crops developed outside of the US are produced in the Czech Republic.

SECTION III. BIOTECHNOLOGY POLICY

Responsible government Ministries and their role

Under Directive 2001/18 EC and Act 78/2004 amended by Act 346/2005, the competent authority responsible for handling notifications and regulating the use of biotech products in the Czech Republic is the Ministry of Environment. It cooperates with the Ministry of Health in respect to human health risks and with the Ministry of Agriculture in respect to agricultural risks including crops, feeds, and animal health. After receiving comments from these cooperating Ministries, and an expert assessment from the Czech Committee on GMOs (see below) the Ministry of Environment issues an authorization for field trials or contained use of biotech products. In the case of notifications for placing biotech products on the market in the EU, the Ministry of Environment sends comments or assessment reports to the European Commission and formulates all final positions of the Czech Republic for a vote in the regulatory committee under Directive 2001/18/EC or the Environmental Council. If the regulatory committee's decision is negative, additional voting is carried out by the Council of Ministers. If positive, it may be released on the market, if negative the Commission may then authorize release on the market.

A slightly different situation applies to biotech products for food and feed. Under Regulation 1829/2003 EC on Food and Feed, a company can apply for biotech product approvals at the Ministry of Agriculture, Food Safety and Technology of the Living Environment Department, which has to forward the application to the European Food Safety Authority (EFSA) within 14 days for review. EFSA will conduct a risk assessment and if it issues a positive recommendation, the application is forwarded to the European Commission, which sends it to member states for assessment. Member states then vote on the proposal in a Regulatory Committee and if a qualified majority votes "yes", the biotech event concerned may be released on the market. If the Regulatory Committee's decision is negative, a second voting is carried out by the Council of Ministers. If positive, it may be released on the market, if negative the Commission may then authorize release on the market.

In summary, the approval of biotech products for import, cultivation and processing falls under Directive 18/2001, transferred to national acts (in the Czech Republic Act 78/2004 amended by Act 346/2005) and the competent authority is the Ministry of Environment, which has to generate an expert assessment and then forward it to the European Commission and other member states for voting. In the case of biotech products for food and feed, Regulation 1829/2003 applies and the competent authority is the Ministry of Agriculture, which only collects applications, which it forwards to EFSA for an expert

assessment (it's a more cautious approach since it directly concerns food). EFSA sends the assessment to the European Commission and other member states for voting.

Role and membership of Biosafety Committee

An expert advisory body to the Ministry of Environment is the Czech Commission for the Use of GMOs and Genetic Products. The Commission has 14 members and consists of representatives of administrative authorities, scientists, and researchers. The main task of the Commission is the environmental risk assessment of the notified biotech products. A list of members is on Ministry of Environment's webpage:

http://www.env.cz/AIS/web-pub.nsf/\$pid/MZPMVF8OSAIO

Political factors

Non-government-organizations (NGOs), among which the strongest one in the Czech Republic is Greenpeace, have a strong influence on the Ministry of Environment and the public. According to the first Act on GMOs No. 153/2000, NGOs were part of the regulatory process, which made GMO approvals much more complicated. For example, when the Czech GMO Commission made a positive recommendation and the Ministry of Environment had approved a biotech product but the NGO's recommendation was negative, the NGO, as a member of the administrative process, could appeal the decision to the Analytical Commission of the Ministry of Environment. This delayed the approval of biotech products by months (e.g. in the case of Bt corn MON 810).

Act 78/2004, which replaced Act 153/2000, and was later amended by Act 346/2005 does not include NGOs in the regulatory process. Under this Act, NGOs may send comments to the Ministry of Environment during the registration process, but once the decision is made, the decision cannot be delayed by any NGO appeals. However, according to Act on Providing Information on the Environment 123/1998, the Ministry of Environment must give information about Bt corn growers to anybody who asks for it. In July 2006, the Ministry of Environment gave a list of Bt corn growers to Greenpeace, so at present farmers worry about vandalism and/or intentional damaging of their crops.

Organic farmers with fears of biotech are also being heard. According to EU Regulations 2092/1991 and 1804/1994, the use of biotech products in organic production is prohibited. Even though Czech farmers grow organic corn on a very small area (around 1,000 hectares), they fear contamination of their fields by biotech varieties. The rules of coexistence only list sanctions for farmers not meeting the requirements set in these rules. However, the rules do not discuss cases when a farmer meets all the requirements but his neighbor's field is 'contaminated' with biotech products, which is very unlikely since a 200 meter separation has proved a very safe distance.

The debate about biotechnology in the Czech Republic is, like in the EU, highly politicized and opponents of biotechnology admit that they are concerned not only about food safety or the impacts of biotech products on the environment but also about economic factors. Opponents also argue that 'if consumers want "GMO-free" products, we have to deliver them'. As of January 2007, the Czech Republic has a new Minister of Environment, Martin Bursik, who is also a Chairman of the Green Party, which has an impact on some positions the Czech Republic takes on GMO in the EU, e.g. in February 2007 the Czech Republic supported Hungary's ban on GM crop against the EU Commission's attempt to force Hungary to remove the ban.

Recent media news on GMO have been rather negative, e.g. on main TV news demonstrating Greenpeace members in trial field for corn NK603 talking about danger of this crop etc. It was immediately refuted on local TV by the U.S. company that was testing this new variety.

Approved biotech crops

Since the EU accession on May 1, 2004, biotech food and feed products approved by the EU are valid in the Czech Republic.

For the register of existing biotech products, see: http://europa.eu.int/comm/food/dyna/gm_register/index_en.cfm

Specific legislation governing these products can be found at:

http://europa.eu.int/comm/food/food/biotechnology/gmfood/legisl_en.htm

The Ministry of Environment handles notifications and approvals for contained use, field trials and cultivation. The Ministry of the Environment has so far received about 100 notifications for biotech products for use, mostly for contained use. All contained uses involve class 1 and 2, there are no cases of class 3 nor 4 contained use in the Czech Republic.

The Czech Ministry of Environment issued approvals for small-scale field testing of oilseed rape, potato, flax and virus-resistant plum trees for scientific and breeding purposes before EU accession. Field trials with Monsanto Bt maize MON 810 were approved in 2002. Following approval for placing the maize MON 810 on the market, more testing of this crop, including variety registration trials took place in 2004. Field trials with Monsanto Roundup Ready maize NK 603 have been approved for the period 2002 - 2004. The field trials with GM-herbicide-tolerant-rapeseed, notified by Aventis, were terminated in 2002 by the company. Presently, the Ministry of Environment has issued an approval for field trials of genetically modified potatoes with altered starch content notified by BASF (notification under part B of the Directive 2001/18/EC, the same GM potatoes are being tested also in other EU member countries, similar notification submitted in Sweden in 2003 for placing on the market – part C of the Directive and is pending in the EU approval process).

A list of authorized users and a list of approved biotech products, together with the relevant legislation and other information, is available to the public and updated on the website of the Czech Ministry of the Environment at the address: www.env.cz.

Field tests

The Czech Republic allows field tests of biotech crops. Currently there are several research projects including biotech potatoes (BASF), herbicide tolerant corn GA21 (Syngenta), Roundup Ready corn NK603 (Monsanto), flax (Agritec) and other varieties. Research of some of these varieties is also carried out by Czech research institutes and universities.

Coexistence rules

In 2005, Bt corn was grown for the first time in the Czech Republic, and the rules for coexistence had to be prepared very quickly. Normally there is a three-year period for variety tests after a biotech product is approved. Bt corn MON810 was approved by the Ministry of Environment in February 2004, and in September 2004 the EU registered 17

varieties with MON810, which means that Czech farmers could plant Bt corn for this first time in spring 2005. The Ministry of Agriculture prepared provisional rules, which were included in the Government Regulation on Conditions of Receiving Additional Payments to Direct Payments ("top-ups") for 2005. As of this year, conditions for GM crop growing are set by the amendment 441/2005 of the Act on Agriculture 252/1997 and by Decree 89/2006.

The rules of coexistence set requirements on information, isolation distances, record keeping and control. The isolation distances were decreased in 2006 from 100 meters for conventional agriculture to 70 meters (or 35 rows of non GM crop as a barrier or a combination of a distance and a buffer zone, in which case 1 row equals 2 meters) and for organic agriculture from 600 meters to 200 meters (or 100 m and 50 rows of non GM crop as a buffer zone). Farmers also have to notify his neighbors and the Ministry of Agriculture (before and after sowing) and the Ministry of Environment (after sowing).

Labeling

Czech act 78/2004 and decree 209/2004 on handling GMOs sets the conditions for contained use, field tests, placing on the market, and requirements for applications for registration, risk assessment, labeling requirements, and a plan for handling accidents. The Act 78/2004 implements Directive 2001/18/EC of the European Parliament and of the Council of 12 March 2001 on the deliberate release into the environment of genetically modified organisms and repealing Council Directive 90/220/EEC. Amendment of the above mentioned Act is valid since 2005 – the Act 346/2005.

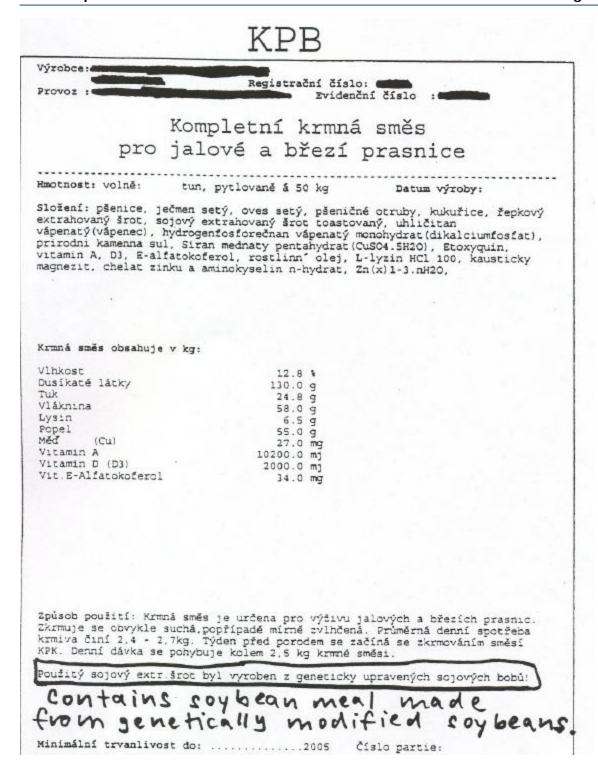
EU regulation No 1829/2003 of the European Parliament and of the Council on genetically modified food and feed lay down Community procedures for the authorization and supervision of genetically modified (GM) food and feed and also lay down provisions for the labeling of GM food and feed.

EU regulation No 1830/2003 of the European Parliament and of the Council concerning the traceability and labeling of genetically modified organisms and traceability of food and feed products produced from GMOs and amending Directive 2001/18/EC. This Regulation provides a framework for the traceability of products consisting of or containing GMOs, and food and feed produced from GMOs, with the objectives of facilitating accurate labeling monitoring the effects on the environment and, where appropriate, on health, and the implementation of the appropriate risk management measures including, if necessary, withdrawal of products.

Even products with no detectable protein (e.g. oil) must be labeled if they are produced from GMOs. The threshold for labeling is > 0.9% of particular GMO. Labeling must contain words "genetically modified" or "produced from genetically modified soy/corn etc." as part of the ingredient list concerned with label/tag. Also unique identifiers of particular GMOs should be included on the label/tag.

Products are labeled for consumer's right to know, not for health/safety reasons.

Below is an example of labeling on feed mixture containing biotech product:



The Czech Republic ratified the Cartagena Protocol on Biosafety in October 2001 and has a Biosafety Clearing House in place (see www.biosafety.cz).

Czech's position on biotech products in the EU

The Czech Republic takes a 'case-by-case' approach in terms of voting on biotech products in the Regulatory Committee or the Ministers' Council. In February 2007, the Ministry of Environment supported Hungary's ban on GM corn growing (MON810) against the EU Commission (political decision), while only two months earlier the Czechs supported the EU Commission against Austria on the same issue – ban on GM corn growing.

The Ministry of Agriculture has a more pragmatic approach and in the spring EU Standing Committee vote supported all three stacked biotech corn varieties (NK603xMON810, 1507xNK603, Herculex Root Worm DAS59122-7).

In summary, the Czech Republic is among the more pragmatic countries in the EU in biotechnology and takes a science-based approach, however, some decisions may be politically motivated.

SECTION IV. MARKETING ISSUES

Market acceptance by producers, importers, and retailers

Many Czech importers and producers of food products have in their 'mission statement' that they do not use biotech products in their products. Since they want to sell products on the whole EU market, they are afraid that negative attitudes of European consumers (at least this is what they read in various articles in Czech newspapers and magazines) would damage their sales.

All Czech retail chains (Makro, Ahold, Tesco, Carrefour etc.) are owned by strong European companies and follow their European headquarters in their policy on biotech products. E.g. UK Tesco says: "Our customers continue to tell us that they are not yet convinced of the benefits of GM. We do not therefore have any own-brand GM foods on our shelves." (http://www.tescocorporate.com/page.aspx?pointerid=6A750D771BFE4E98A3F0741AA32E5489)

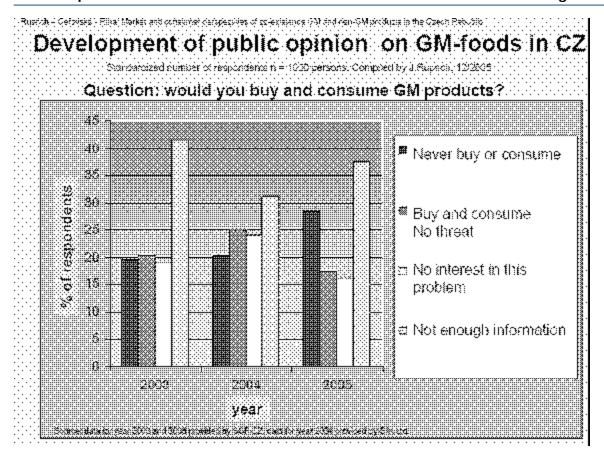
Even though policy of retail chains in general is not in favor of GM products, many supermarkets (including Tesco) carry items containing GMO, such as cooking oils and these products are labeled (even under Tesco private label).

The new opportunity for biotech producers is in bioethanol production. There are several bioethanol plants in the Czech Republic and a few more are being built. The plants use grain, including GM corn, as feedstock and bioethanol producers already declared that they would buy GM corn for ethanol production.

Importers of commodities for feed, e.g. soybeans import biotech crops and label them.

Study on public opinions

The State Health Institute, Center for the Hygiene of Food Chains, conducted three studies of public acceptance of biotech products, in 2003, 2004 and 2005. The graph from the State Health Institute shows that negative attitude towards GMO has increased and that a fairly high percentage (one third of people) say they do not have enough information on the subject.



SECTION V. CAPACITY BUILDING AND OUTREACH

USDA and State Department's programs

During the past six or seven years Czech scientists, researchers, regulators, and journalists visited the US under the Cochran Fellowship Program. A few people also participated in the State Department's VolVis (Voluntary Visitors) and IVP (International Visitor Program) programs on biotechnology.

In 1999, a Czech scientist and promoter of biotechnology Prof. Drobnik of the civic association Biotrin visited the United States under the Cochran Fellowship Program, and he with a small two-person TV crew made a documentary film called "Genes of Controversy", which was dubbed into several languages and broadcasted in several central European countries. The film can be found at www.biotrin.cz

Suggestions for increasing science-based regulations

All of these programs (CFP, IVP, VolVis) have been extremely useful for Czech participants and participants a lot of information on biotechnology. Continuing these programs would be beneficial.

Seminars with good U.S. biotech speakers on U.S. regulatory system and experience from other European countries for Czech regulators, journalists, and food producers would help increase consumer awareness (articles in papers and magazines) and would stir up a debate among food producers and regulators about use of biotech products in foods.

In September 2007, USDA and the State Department will organize a regional conference on biotechnology with emphasis on growing and use of biotech products in new areas, such as biofuels.

SECTION VI. REFERENCE MATERIAL

Important webpage links

European Union:

http://europa.eu.int/comm/food/food/biotechnology/index_en.htm

European Food Safety Authority (EFSA):

http://efsa.eu.int/

Czech Ministry of Environment (in Czech):

http://www.env.cz/AIS/web.nsf/pages/gmo

Biosafety Clearing House – Czech Republic (in English):

http://www.biosafety.cz/

Czech Ministry of Agriculture (in Czech):

http://www.mze.cz/default.asp?ids=2292&ch=73&typ=2&val=2292

Text of the Strategy for Food Safety (document prepared by the Ministry of Agriculture, Food Safety and Technology of the Living Environment Dept.) (in English): http://www.mze.cz/attachments/Food_Safety_Strategy_compl..doc

NGO (for biotech) Biotrin (in English):

http://www.biotrin.cz/

NGO (against biotech) Greenpeace (in Czech):

http://www.greenpeace.cz/gmo/

Related reports

Previous reports on biotechnology regarding the Czech Republic may be found on FAS homepage http://www.fas.usda.gov/scriptsw/AttacheRep/default.asp under the following numbers:

EZ6009	Biotech Annual
EZ6005	Biotech Update
EZ5003	Biotechnology - Consumer Perceptions
EZ4011	New GMO Law
EZ4010	National Biosafety Framework
EZ4001	Status of Biotech Regulations – Central Europe
EZ3020	Consumer Perceptions of Biotechnology
EZ3018	Status of Bt Corn Registration in Czech Republic
EZ3015	Biotechnology from a Czech Perspective
EZ3012	Status of Biotech Regulations
EZ3003	Biotechnology - Status of GM Approvals
EZ1016	Implementation of GM Labling Law - Consumer Products
EZ1011	GMO Approval Process
EZ0020	New Law Comes Into Force January 1, 2001

EZ0015 Biotechnogy – GMO Survey and Press Roundup

EZ0003 Update on Biotechnology Legislation